

The invention claimed is:

1. A coupling member for pivotally coupling a member to an associated mounting ball comprising:

a body having a spherical socket with a pair of slots communicating with said socket for receiving a generally C-shaped spring, said body further including a recess configured to receive a cam;

a cam including a cam element and control handle, said cam nestably received within said recess of said body; and

a generally C-shaped spring positioned over said cam and engaging said body with said C-shaped spring including ends extending within said slots of said body for lockably engaging a ball, wherein said cam element when moved from a locking position to an unlocking position urges said ends of said spring at least partially out of said slots for releasing said body from an associated ball.

2. The coupling member as defined in claim 1 wherein said body is made of a polymeric material.

3. The coupling member as defined in claim 2 wherein said body is integrally molded.

4. The coupling member as defined in claim 1 wherein said cam comprises a generally cylindrical member having a control handle near one end and a cam element spaced from said handle.

5. The coupling member as defined in claim 4 wherein said body includes a socket for receiving one end of said cam.

6. The coupling member as defined in claim 5 wherein said spring has at least one semicylindrical recess for receiving an end of said cam element of said cam when in a locking position.

7. The coupling member as defined in claim 6 wherein said spring has a pair of spaced semicylindrical recesses for holding said camming element in one of two locking positions.
8. The coupling member as defined in claim 1 wherein said cam element has a length selected to control the movement of said spring between locking and unlocking positions.
9. The coupling member as defined in claim 8 wherein said recess of said body includes an arcuate slot for receiving said control handle.
10. The coupling member as defined in claim 9 wherein said cam includes a collar positioned intermediate said control handle and said cam element and said recess include a semicylindrical aperture for receiving said collar.
11. The coupling member as defined in claim 9 wherein said cam element comprises a blade radially aligned with said control handle.
12. A gas assist strut and coupling member for pivotally coupling an end of a gas assist strut to an associated mounting ball comprising:
  - a gas assist strut having a movable rod extending therefrom;
  - a body coupled to an end of said rod having a spherical socket with a pair of slots communicating with said socket for receiving a generally C-shaped spring, said body further including a recess configured to receive a cam;
  - a cam including a cam element and control handle, said cam nestably received within said recess of said body; and
  - a generally C-shaped spring positioned over said cam and engaging said body with said C-shaped spring including ends extending within said slots of said body for lockably engaging a ball, wherein said cam element when moved from a locking position to an unlocking position urges said ends of said spring at least partially out of said slots for releasing said body from an associated ball to decouple said strut from the associated ball.
13. The structure as defined in claim 12 wherein said body is made of a polymeric material.

14. The structure as defined in claim 12 wherein said body is integrally molded.
15. The structure as defined in claim 12 wherein said cam comprises a generally cylindrical member having a control handle near one end and a cam element spaced from said handle.
16. The structure as defined in claim 15 wherein said body includes a socket for receiving one end of said cam.
17. The structure as defined in claim 16 wherein said spring has at least one semicylindrical recess for receiving an end of said cam element of said cam when in a locking position.
18. The structure as defined in claim 17 wherein said spring has a pair of spaced semicylindrical recesses for holding said camming element in one of two locking positions.
19. The structure as defined in claim 12 wherein said cam element has a length selected to control the movement of said spring between locking and unlocking positions.
20. The structure as defined in claim 19 wherein said recess of said body includes an arcuate slot extending through an arc of about 180° for receiving said control handle.
21. The structure as defined in claim 20 wherein said cam element comprises a blade radially aligned with said control handle.
22. A coupling member for pivotally coupling an end of a member to an associated mounting ball comprising:
  - a body having a generally spherical socket with a pair of spaced slots tangentially communicating with said socket for receiving ends of a generally C-shaped spring, said body further including a recess configured to receive a cam;
  - a cam including a cam element and control handle, said cam nestably received within said recess of said body; and

a generally C-shaped spring positioned over said cam and engaging said body with said C-shaped spring including ends extending within said slots of said body and curved for lockably engaging a ball, wherein said cam element when moved from a locking position to an unlocking position urges said ends of said spring at least partially out of said slots for releasing said body from an associated ball.

23. The coupling member as defined in claim 22 wherein said spring has a pair of spaced semicylindrical recesses for holding said camming element in one of two locking positions.

24. The coupling member as defined in claim 22 wherein said cam element has a length selected to control the movement of said spring between locking and unlocking positions.

25. The coupling member as defined in claim 24 wherein said recess of said body includes an arcuate slot for receiving said control handle.

26. The coupling member as defined in claim 25 wherein said cam element comprises a blade radially aligned with said control handle and axially spaced therefrom.